



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,420	08/30/2001	Ren Da	Da 9-12	7422

7590 07/13/2007
Docket Administrator (Room 3J-219)
Lucent Technologies Inc
101 Crawfords Corner Road
Holmdel, NJ 07733-3030

EXAMINER

LEE, JOHN J

ART UNIT	PAPER NUMBER
----------	--------------

2618

MAIL DATE	DELIVERY MODE
-----------	---------------

07/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/942,420

Applicant(s)

DA ET AL

Examiner

JOHN J. LEE

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments with respect to claims 1 – 16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-4 and 11-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jolley et al. (US 6,323,803) in view of Chou (US 2002/0055817).

Regarding **claims 1, 11, and 15**, Jolley teaches that selecting at least one ranging measurement associated with a first ranging source (first position measurement from directly satellite) belonging to a first ranging source type (GPS in satellite) (Fig. 1 and column 5, lines 8 – column 6, lines 57, where teaches a mobile station receives a ranging measurement source, position measurement signal, GPS signal from the a satellite). Jolley teaches that selecting at least one ranging measurement associated with a second ranging source (cell site base station or mobile location center) belonging to a second ranging source type (location signal) (Fig. 1 and column 6, lines 5 – column 7, lines 50, where teaches the mobile station also receives positioning information, ranging measurement information form cell site base station with mobile location center for estimating location). Jolley teaches that extracting ranging measurements from ranging sources belonging to at least two ranging source types (Fig. 1 and column 6, lines 5 –

column 7, lines 58, where teaches storing received first source and second source location information and updating the location information periodically, and extracting the two location information source, satellite GPS type or cellular based communication type, and comparing the first range and the second range location information). Jolley teaches that performing failure detection using the selected ranging measurements associated with the first and second ranging sources to determine whether either of the first or second ranging sources failed (Fig. 1 and column 6, lines 5 – column 7, lines 58, where teaches storing received first source and second source location information and updating the location information periodically, and comparing the first range and the second range location information, and if the one of the information is old location information or failure, determining and using the other location information (most recent location information or received the information successfully) for estimating the position).

Jolley does not specifically disclose the limitation “either of the ranging sources failed that at least one ranging source type comprises a satellite system and at least one ranging source type comprises a land-based wireless communication network”. However, Chou supportly teaches the limitation “either of the ranging sources failed that at least one ranging source type comprises a satellite system (GPS) and at least one ranging source type comprises a land-based wireless communication network (a terrestrial location detection network)” (Fig. 5, 10 and pages 4, paragraphs 52 – 53, where teaches operating the GPS signal from GPS unit is always evaluated first by CPU that if the GPS signal (ranging source of satellite system) is valid, CPU updates the location information processing for using GPS signal, and if not (failed), the radio receiver of the terrestrial

location network (source of land-based wireless network) is activated by CPU to determine and use valid terrestrial location signal for updating location information processing). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Jolley's system as taught by Chou, provide the motivation to achieve optimal location determining information processing in mobile communication network.

Regarding **claims 2 and 13**, Jolley teaches that failure detection is performed using weighted ridge regression techniques (Fig. 1 and column 6, lines 5 – column 7, lines 58, where teaches the method for detecting and comparing the first range and second range using determining position technique).

Regarding **claim 3**, Jolley and Chou teach all the limitation, as discussed in claim 1.

Regarding **claim 4**, Jolley teaches that performing failure isolation using the selected ranging measurement (Fig. 1 and column 6, lines 5 – column 7, lines 58, where teaches storing received first source and second source location information and updating the location information periodically, and comparing the first range and the second range location information, and if the one of the information is old location information or failure, determining and using the other location information (most recent location information or received the information successfully) for estimating the position).

Regarding **claim 12**, Jolley teaches that performing failure isolation using the selected ranging measurements (Fig. 1 and column 6, lines 5 – column 7, lines 58, where teaches storing received first source and second source location information and updating

Art Unit: 2618

the location information periodically, and comparing the first range and the second range location information, and if the one of the information is old location information or failure, determining and using the other location information (most recent location information or received the information successfully) for estimating the position).

Regarding **claim 14**, Jolley and Chou teach all the limitation, as discussed in claim 1.

Regarding **claim 16**, Jolley teaches that selecting ranging measurements is based on perceived reliability associated with each of the extracted ranging measurements (Fig. 1 and column 6, lines 5 – column 7, lines 58, where teaches storing received first source and second source location information and updating the location information periodically, and extracting the two location information source, satellite GPS type or cellular based communication type, and comparing the first range and the second range location information).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 5-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jolley in view of Chou and in further view of Fernandez-Corbaton et al. (US 6,289,280).

Regarding **claims 5 - 9**, Jolley and Chou do not specifically disclose the limitation “the ranging measurement associated with the first or second ranging source is a PN phase offset measurement, a pilot phase offset measurement, a signal strength measurement of a signal transmitted by the first or second ranging source, and a round trip delay and one way delay between a receiver and the first or second ranging source”. However, Fernandez teaches the limitation “the ranging measurement associated with the first or second ranging source is a PN phase offset measurement (column 3, lines 21 – 39 and Fig. 3, where teaches measuring PN offsets of each pilot it receives for location information), a pilot phase offset measurement (column 3, lines 21 – column 4, lines 53 and Fig. 3, where teaches measuring pilot power phase offsets for location information), a signal strength measurement of a signal transmitted by the first or second ranging source (column 3, lines 21 – column 4, lines 53 and Fig. 3, where teaches measuring pilot power phase offsets (signal strength of each pilot signals) for location information), and a round trip delay and one way delay between a receiver and the first or second ranging source (column 2, lines 16 – column 3, lines 18 and Fig. 3, where teaches determining round trip delay and propagation delay)”. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Jolley and Chou systems as taught by Fernandez, provide the motivation to improve reliability and stability of determining location measurement for mobile station in mobile communication system.

Regarding **claim 10**, Jolley and Chou teach all the limitation, as discussed in claim 1. However, Jolley and Chou do not specifically disclose the limitation “the ranging measurement indicates an enhanced observed time difference between a receiver

Art Unit: 2618

and the first or second ranging source". However, Fernandez teaches the limitation "the ranging measurement indicates an enhanced observed time difference between a receiver and the first or second ranging source" (column 2, lines 16 – column 3, lines 18 and Fig. 3, where teaches determining time-difference of arrival of the two pilots from two sources). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Jolley and Chou systems as taught by Fernandez, provide the motivation to improve reliability and stability of determining location measurement for mobile station in mobile communication system.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ramesh (US 6,636,740) discloses Position Computation Based on Broadcast Initialization Data.

Information regarding...Patent Application Information Retrieval (PAIR) system... at 866-217-9197 (toll-free)."

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231
Or P.O. Box 1450
Alexandria VA 22313

or faxed (571) 273-8300, (for formal communications intended for entry)

Or: (703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to USPTO Headquarters, Alexandria, VA.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John J. Lee** whose telephone number is **(571) 272-7880**. He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00 pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Edward Urban**, can be reached on **(571) 272-7899**. Any inquiry of a general nature or

Art Unit: 2618

relating to the status of this application should be directed to the Group receptionist
whose telephone number is (703) 305-4700.

J.L
July 6, 2007

John J Lee


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600